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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,100	08/22/2001	Bogdan Szafraniec	10010292-1	9826

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AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
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EXAMINER

BROWN, KHALED

ART UNIT PAPER NUMBER

2877

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/938,100

Applicant(s)

SZAFRANIEC ET AL.

Examiner

Khaled Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-29 is/are allowed.
- 6) ☒ Claim(s) 1,3-6,10 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 2,7-9 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

Claims 7-9 and 10-16 are objected to because of the following informalities: in claims 7-9 the phrase "the orthogonal filters" lack antecedent basis. In claim 10 the phrase "generated by test interferometer" is not grammatically correct. Claims 11-16 depend from claim 10 and thus contain the same deficiencies. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10,12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Gisin et al (US 5852496).

Re clm 10: Gisin et al discloses a method comprising: generating a light signal (Gisin et al Col 4 line 21); transmitting the light signal on an optical test interferometer (Gisin et al Col 4 lines 23-24); receiving a reference signal and a test optical signal, the reference optical signal being generated by test interferometer (Gisin et al Col 4 lines 28-32); and computing the optical characteristics of the optical DUT by utilizing at least one amplitude and phase computational component (Gisin et al Col 4 lines 33-36).

Re clm 12: group delay (Gisin et al Col 4 lines 37-63)

Re clm 13: heterodyne beat signal (Gisin et al Col 4 lines 16-19)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-6 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gisin et al (US 5852496) in view of Iwaoka et al (US 4856899).

Re clms 1,4: Gisin et al discloses a system for measuring optical characteristics of an optical device under test (DUT), said system comprising: a light source for generating an optical signal applied to the optical DUT (Gisin et al 16); a test interferometer (Gisin et al 51), said interferometer being optically coupled to said light source; and a computing unit coupled to said interferometer (Gisin et al 21), said computing unit utilizing amplitude and phase computational components to aid in the determination of optical characteristics of the optical DUT (Gisin et al Col 2 lines 53-57). However Gisin et al does not disclose a reference interferometer. Iwaoka et al teaches that a tunable laser light source should include a reference interferometer (Iwaoka et al Fig 21) because it increases the variable range of the oscillation frequency of the tunable laser (Iwaoka et al Col 12 lines 4-7). Therefore it would have been obvious to a person of

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ordinary skill in the art at the time the invention was made to replace the light source of Gisin et al (Gisin et al 16) with the tunable laser light source of Iwaoka et al having a reference interferometer (Iwaoka et al Fig 21) because it would increase the variable range of the oscillation frequency of the light source in the apparatus of Gisin et al as suggested by Iwaoka et al.

Re clm 3: group delay (Gisin et al Col 4 lines 37-63)

Re clm 5: heterodyne beat signal (Gisin et al Col 4 lines 16-19)

Re clms 6,16: non-dispersive or compensated for dispersion (Iwaoka et al Fig 21)

Re clm 14: tunable laser light source (Iwaoka et al Fig 21)

Re clm 15: computing the amplitude and phase (Gisin et al Col 4 lines 32-36)

### ***Allowable Subject Matter***

Claims 17-29 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to disclose or suggest utilizing orthogonal filters in conjunction with the rest of the claimed subject matter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 2,7-9 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose or suggest utilizing orthogonal filters in conjunction with the rest of the claimed subject matter.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Szfraniec et al 6486961, Sorin et al 5202745, Rosenfeldt et al, 6606158, Seago et al 5801830, Cyr 6204924, Ozeki et al 5390017, Deck 6434176, Cliche et al 5780843 and Wyeth et al 4905244.

Note: The electronic system shows that no IDS have been filed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khaled Brown whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KB  
June 22, 2004

A handwritten signature in black ink, appearing to read "Frank L. Font". The signature is stylized with a large, flowing "F" and a cursive "L".

Frank Font  
Supervisory Patent Examiner  
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